1754	Nicole Rodriguez from the USCG is passing along recommendations for TCEQ; she suggests adding information about ITC's proactive and precautionary measures to press releases. These measures include  1. Booming Tucker Bayou and hard booms at the end of Tucker Bayou  2. Adjusting boom constantly  3. Precautionary boom at battleship, booms at San Jac Park for Sananta (sp?) Bayou
~1752	80-5 tank with Xylene ignited; took 27 seconds to put out
	80-8 had hot spots
	The fire fighting foam had perchlora[not overheard]-acid in it EPA sampling Buffalo Bayou tomorrow
	EPA also did sampling today
	TPWD asked for boom of battleship earlier today by notifying the Coast Guard of
	their request
	Benzene hits in neighboring facilities, e.g. Clean Rivers, 0.5-2.0, 2.5 average at Clean Rivers
	Facilities couldn't take samples due to Benzene in some places
1803	4 items +p.phos will be sampled by EPA (turn around for samples estimated 5
	days)
	Will be an inversion tonight – if EPA gets hits on benzene they will sample
	There will be EPA guys on Coast Guard boat tomorrow sampling Galena Park meeting (with Environmental Justice?) happening now
1817	EPA contractor Weston back from field, report Outfall 003 open and water
1011	pouring out
	ITC previously today claimed they closed the outfall
	80-8 and 80-5 tanks have hot spots
	Outfall goes into Tucker Bayou, there are 4 booms before water reaches the ship channel
	SCAT - shoreline cleanup assessment team
	Coast Guard Nicole asks if we have anyone out there doing SCAT
Before	
Noon	Elevated benzene at location (incident location)
	7,11,14 have no roof Nicole Bealle: "They are consciously making an effort to not stop the flow of
	water"
1854	No skimmers observed, no vac trucks (confirm?) vaccing out of Tucker Bayou, no
	night activity occurs (confirm?)
	Some haziness on who was/is doing what (Coast Guard/ITC?)
	Michael from Weston reported the open outfall 003 Two tanks without roof and product in them(?)
1920	P.phos and p. foe (sp?) will be tested by EPA tomorrow (@ Buffalo Bayou)
1320	37.1 method (?)
	TCEQ contractor got a sample of foam
	N.Bealle – request to ask for Coast Guard vessel to be made available
	N.Bealle – What are the labs to be used? N.Bealle – What are the methods?
	N. Bealle - What was the quantity of water + foam used?
1933	Reed McClellan and Mike Gaudet from ITC meeting
1025	Flare-up, no additional fire after the event
	No activity that a person was doing that caused it
1935	"Outfall has not been reopened" - Mike Gaudet EPA Steve Mason - request to go verify if outfall open/closed
	in a steve mason request to go verny in outlain open/ closed

ITC Mike Gaudet - lots of pipes right there; not sure what pipe that is, confirmed assessment that it appears to be pouring out

ITC previously stopped sampling, but now resumed to every 2 hours

TCEQ/EPA asks (Kendra and Steve) Where are skimmers and vac trucks?

ITC Mike Gaudet made comment saying vac trucks were out there

ITC Mike Gaudet not aware of skimmers being deployed; "definitely supposed to be vac trucks"

TCEQ requests flow rate of outfall

TCEO requests volume secondary container will hold

TCEO requests volume of foam

ITC Mike Gaudet says they should have that

TCEQ requests volume of water

ITC Mike Gaudet does not know if he can get fire water amounts

TCEQ asks if outfall is open, what sparked that opening?

ITC Mike Gaudet was not aware of outfall being potentially open

ITC Mike Gaudet:

Tonight scheduled to move product from 80-7

Priority is Pygas due to the nature of the product

Have empty tank to move product to: 100-28

Will use a 4" line; so it's going to move slowly (estimated to be 2 days)

EPA asks what's in secondary containment

ITC Mike Gaudet says can't deal with that right now

"it's not full of water; it's maybe about 1 foot"

There's open top tanks and leaking pipes requiring foam application; must hold what they've got

TCEO says product is being observed in ditch

ITC Mike Gaudet is unsure whether pics of ditch are pics of product

ITC Mike Gaudet says boom boats and Oil-Mop (sp?) is supposed to handle that; supposedly today and everyday

TCEO indicates that boom was out of water

ITC Mike Gaudet says Oil-Mop in charge of that and that someone from ITC was supposed to be overseeing

TCEQ suggests to make sure that this is the case

ITC Mike Gaudet says maybe 2 tanks, 100,000 gallon tanks are available (empty) to pump product in

80-1, 80-4 do not pose a concern that the others do so long as leaks can be stopped

TCEQ/EPA informed change of putting q's in writing

214-789-1871 Steve Mason EPA

214-202-6952 contact info for ??? with EPA

ITC planning to put foam blanket on open roof tanks

TAGA bus tomorrow to go to area of that meeting, take pic in front of church

Facility rep confirmed outfall 003 not open

They think it might be coming from surface water drainage

EPA: overspray? Outside secondary containment runoff, surface runoff from ditches

Facility still contemplating putting "wastewater" from secondary containment through wastewater treatment plant (biological) but say they prefer not to Nicole Morris informed them at the very least they'd need approval from TCEO, first

Jack Coleman says no boat or activity occurring "out there"

Oil-Mop meeting within next hour indicating by tomorrow morning there would be a much greater presence

1955

2151

1938

Nicole Bealle suggests sampling tomorrow and securing Coast Guard boat; discussion between TCEQ & EPA on "divide and conquer" sampling or side-by-side sampling

7.38 million gallons capacity of secondary containment 175,000 barrels They have about 2 foot of freeboard left which may be ~70,000 barrels

Still in firefighting mode, in the last three hours foam 4 times. Every 4 hours it's 18,000 barrels foam and water

Facility asks to discharge from Outfall 003 due to concerns about amount of water in secondary containment

They hope that foam and oil will float and they would only discharge the bottom layer – mostly water, allegedly

Pumping 80-7 update has suggested faster than 2 days

Facility worries that tanks that aren't on fire might be leaking.

ITC is getting an inventory of every foam used, will take a sample of every type of foam and will analyze for p. phos.

Ordered containers, will be here tomorrow

EPA had to get special containers, too. Five day turn around.

Facility hoping to pump all water from secondary containment to tank, add some fresh water because the water is brackish and the brackish might kill the plant

Nicole Bealle: They will have to talk to water permits, it has a lot of product in it, may need to be analyzed; it's a RCRA waste

The facility prefers to pump to a barge and dispose of it.

530 readings of benzene but 0 hits; but hits been detected at industry

Facility is going to work on releasing additional data; i.e. the industrial benzene readings

2341 ITC Mike Gaudet (normal title: Environmental Compliance) comes in to give update

Transferring product – some snags, in the last hour they are trying to regroup and move to some different tanks (i.e. not the 80-7 pygas), going to start moving product to 80-18 tank (gone through hydrostatic test and needs a little extra testing to be sure it is clear of water)

Surface drain is the discharging point, no sampling at the point but sampling is happening downstream

Trying to start moving product to the new tank tonight; original plan had issues with valve

Control releases – TCEQ suggests sample within a reasonable time, for contaminants which could be found in the facility as well as metals and TSS ITC developing plan on what to do with water in secondary containment.

## Night March 21, 2019 to early morning March 22, 2019

1852	Discussion of where to position EPA/TCEQ (upstairs/downstairs) as well as
	debriefing by on site TCEQ/EPA people, Adam (EPA), Steve (EPA), Tina (TCEQ),
	Nicole Bealle (TCEQ)

Night ops meeting @ 1900 Next meeting at 0700

In attendance: Coast Guard, TCEQ, ITC, Sheriff Harris County, Harris County Fire Marshal (Richard Lawhorn), Houston Fire Department, Harris County Pollution Control, CTEH will be added tonight (EPA representative not in attendance)

Carl Holly ITC Incident Command; Hector Kadina (sp?) ITC Deer Park on scene coordinator

Weather – high pressure to the west, keeping wind from north blowing south, eventually the high pressure will calm winds to nothing, then wind moving north around 3/3:30pm tomorrow

CTEH team will be set up in the kitchen, air monitoring and sampling/disposal plans

Operations: Fire suppression team: currently adding foam every hour for 20/25 minutes in the area, will continue tonight, until start removing product to 80-7 to 80-18. Will lower submersible pump into 80-7 and pump into 80-18. Hope to have it going within the next couple hours.

Containment and recovery: spill booms, skimmers, taking sampling, flew drone, looking into doing more booming and relocation of booming, resources at risk have protection booming, CTEH developing a resources at risk list.

Checkpoints have been established with police officers, full accountability of work area "hot zone". Three checkpoints total (to the south, and west). Two staging areas. Loading area for foam.

Air operations: Bryce Allen (organization unknown at this time) air ops temporary flight restriction area (1000 feet) 220 air operations summary being created, flight schedules being evaluated. Will do infrared filmography to determine hot spots when tank "punched", "no promises" hope to stream it to EOC.

Objectives (in priority order)

- 1) Safety of personnel and public security guards and checkpoints, air and water monitoring
- 2) Public health and wellbeing air and water testing
- 3) Fire suppression foam blanket
- 4) Conduct damage/stability assessment, develop and implement water removal plan
- 5) Ensure undeterred maritime transportation
- 6) Maximize protection of environmental and socially sensitive areas
- 7) Keep the public, stakeholders, and the media informed

Constraints: weather conditions, air monitoring exceedances, location of incident, availability of resources, permits, access to shoreline (private land), spilled material characteristics, public health, disposal of waste

"2nd 80's Fire" incident name

Environmental Unit Leader - CTEH

"Section chiefs have full authority on filling positions; however, ensure agencies are integrated into the organization"

30 minutes prior to release all external releases of information should be approved

Air monitoring Deer Park, Pasadena and La Porte to ITC Portal but to TCEQ and EPA two hours in advance

Immediate reporting:

Injury or death, anything greater than first aid

Air monitoring exceeding action levels

Public health impacts

Any loss of major tactical resources

<and others with immediate safety or resource concerns>

10am press conference, no press release written at this time, request for TCEQ/EPA to push it up in the morning as soon as possible.

Public Information Officer (ITC) has safety concerns with regards to personal safety from the public (police escort requested by PIO)

Liaison Officer Deer Park supposed to have a representative on site (EOC) tonight, probably someone from police department

Going to start trying to pump material out, if emissions come up, need to notify surrounding area but also EOC's

50-2 when liquids are recovered from the ground Remove Pygas from 80-7, started pumping to 80-18 but have lost prime multiple times, stopped at 1046 ITC to meet with Operations at 00:15 on 3/21 to develop a plan to handle water waste, planning to pump containment area to 100-28 with potential to go to other tanks and potential to go to 80-18, all resources in route. Identify timeline for next media release, no schedule in place right now but working on it Schedule a meeting with Deer Park to discuss action levels for air monitoring (did meet earlier this evening, but ongoing) will be representative on site from Deer Park EOC Obtain radios that will allow ICP to speak to field personnel - complete Flare up on first 80's manifold, now extinguished and foam being applied (between 80-3 and 80-6 tanks) Engage NWS to provide forecasts (has been requested) Helen Environmental lead working on Waste management plan, other plans Rapid Assessment Plan is complete and with Agencies Need to move totes of foam out of hot zone to try to sample the foam ITC employees can't get to work in a shelter in place order No night operations (water) as of yesterday Skimmers: 2 (as of this morning) Vac trucks: 4 (one 150 barrel, four 70 barrel) Fire is back under control, knocked back down by foam blanket Breezy out of Southeast right now, will turn Southwest 1952 Discussion of recording data and reporting of air monitoring equipment Talk with mayor to refine action level suggested (EPA/TCEQ) Road closures causing logistical issues with transportation 2013 2029 As investigations begin notification will be provided. 2116 Booster pump connection issues, as with Tank 80-8 2202 8 to 10 flange found, working through problem with booster pump connection Jordan Baldueza switches in for Coast Guard 2215 Benzene smell around Federal Road - Sheriff Harris County (train (sp?) crew 2233 smelling benzene Watco on Federal Road down by tunnel, no shelter in place currently in place (1710 Federal Road) "Guy from their main office" reported it 2250 Connor Wade from Deer Park Police here in ICP 2315 Conversation by Ops about composition of tanks (aluminum vs steel) 2340 CTEH did not find any readings at that location, went up and down the road took a few readings, and did not find anything 2353 Info going to Transtar not being relayed to ICP here. Do they need to verify that information? (The sampling info) Occurred at 8pm, handheld monitoring device collected the data, follow-up reading 0.75 4 minutes later. 20 minutes later non-detect. Benzene 2359 Tank trucks in route, 14 mats per truck 29.751391, -95. 089384 is location of benzene hit in La Porte, winds southwest at 0005 3 miles 0141 They are working on a fitting for the tank to start moving product, no ETA as of 0143 The Response Group doesn't have the sharing guidelines yet, so they anticipate it may be tomorrow morning before they will be able to tell us when and to whom the IAP will be sent out No submersible pump for pumping out the tank vet 0157 2AM conference call, with industries, individuals present: Spencer Woolridge, Kevin Young, Reed McClellan, Tim Gittery, Carl Holly, John Pasquet (all

Identify and order the appropriate type of defoamer to prevent foaming in tank

from ITC); Lyondell Basell, Oxyvinyl, Oxy Deer Park, Oxyvinyl Pasadena, Shell Deer Park, Oxy La Porte, Trimech, Texas Molecular, DOW Chemical, State Park, (??)-battleship, Geospecialty Chemicals

Trying to get pump started 80-7 tank to transfer, fitting problems have happened, once fittings solved then will start the process

Lots of resources, totes, foam, mats, supplied air, five min escape packs, etc. coming in

Need hydraulic fitting problem resolved

Estimated time to action: "next couple hours"

CTEH is giving air monitoring report, since after 5pm there was one detection northeast of the site 1.05 ppm, dissipated in 20 minutes; 0.3 and 0.75 at the monument dissipated to non-detect in 20 minutes

Do not anticipate any offsite impact just because they start pumping Industries: "How are the vapors displaced from one tank to the next?"

downspout for degas until RF (?) actually floats

Pumping capability 1400 barrels an hour; 8-9 hours to finish transfer

Industries: "Backup plan in case pump doesn't work?"

Yes, there is a backup plan, ramping up for other plans, may include penetrating tanks and let it drain into tank farm, up to a controlled burn at the tank (last resort)

Industries: "Do you plan to keep highway closed during transfer?"

Yes, that is the plan, but will make sure to keep open for other industry shift change

Industries: What is your security?

Two-point check, badging by The Response Group

0218 Call ended

Night March 22, 2019 to early morning March 23, 2019

1749	One of the laterals burning? Fill the whole area with dry chemical? Maybe burning backwards?
1752	Will do ops briefing at 1900 tonight
1757	May move Incident Command to hotel - Nicole from Coast Guard says
1759	Only thing going "back there" might be a dock line, "need to make sure
	everything is isolated"
1802	TPWD will join tomorrow, potential field resource (SCAT trained folks) Heather
	Biggs, going to bring another person
	Boats will be provided for the Environmental Unit Leader
	There's a line still flowing - that's what's catching fire they think at the manifold
	(Investigator note: sounds like it's a T-juction with one pipe next to Tidal)
1810	Leaking back into 80-2 and 80-3
	Submersible pump was not damaged
1823	No hits since the fire on air samples
	"We need to suck up that ditch and suck it up quick. We need as many vac trucks

"We need to suck up that ditch and suck it up quick. We need as many vac trucks as possible.... Find every vac truck over there at (???) and line them up"

Four vac trucks at one time, 100-28 will be holding tank for vac trucks, asking KK how many vac trucks they can get

US pump and fire has clay coming; clay to build a wall

US pump told to start whenever they are ready, dumping dirt and have dirt equipment

Long stick track hoe is there

More critical to do tank 80-7 or the wall? Asks Incident Command

Foam everywhere, pretty good shape, says hot zone

When ready, hot zone, let us know and we'll give final go-ahead, says IC.

Hit of 1.03 in Channelview

1911	16.59ppm benzene at National Tank Service
1915	David Wade Harris County reports detecting 1.03ppm in Channelview
1940	Briefing Safety no injuries, no first aid
	Health - air monitoring done no impact to Deer Park
	Wind direction shifted, northside and Ship Channel 1.6 in Jacintoport
	David Wade contacted them
	Tank containment wall failed impacted environment in to Tucker Bayou, need to
	remediate and remediate Ship Channel
	Coast Guard needs to reassess amount in Ship Channel tomorrow morning
	ITC, CIMA, Us Pump and Fire, TNT Fire boat (11pm will be there), Houston Fire
	(going to be 3 boats)
	Williams covers two sides, US Pump and Fire cover two sides
	Objectives
	1) Remediate ditches
	a. Rebuild containment wall
	2) Pump 80-7 to 80-10(?)
	3) Clay delivered, extended boom, final walkthroughs on 80-7
	5) Ciay denvered, extended boom, miai warkimoughs on 80-7
	TRG will build out the warehouse downstairs for IC/EOC downstairs
	OMI, NRC water resources
	Nightime operations on Ship Channel will not happen, but Tucker Bayou
	remediation will
	Decision to deploy US Coast Guard National Strike Team to remediate Ship
	Channel - will arrive in the morning
	Remediate up the ditches, get out as fast as possible
	Dirt has been deposited into the ditches as a make-shift berm, but water
	going over the top of the dirt
	Product still leaking from tanks
1950	Meeting adjorned
1957	TCEQ: How many vac trucks?
	SCAT locations: Map
	80% Mostly nothing, 15% gray slime foam, 5% directed to oil
2007	La Porte citizen says they saw smoke
	START samples:
	29.732977, -95.0968016
	In drainage ditch
	29.7554070, -95.08888998
	Near battleship Texas
	VOC, SVOC, COD, Oil & Grease
	ASPECT down, no night flight, flew this afternoon (mainly hot zone)
	TAGA bus neighborhoods deer park, battleship, north side of bayou (downwind)
	7-8am start up
2032	5 vac trucks actively pumping Tucker Bayou
2046	Battlefield monument area consistently above 1
2047	Training facility dorm, odor, CTEH took readings 0.5 – 1.5 benzene, evacuated
	personnel - From Kirby
2055	Two booms holding at the mouth of Tucker Bayou, some product between the
	booms, hydraulics getting past the booms (mixture of brown stuff) -
	sheen, entrainment
	Four booms in bridge area 12 inch (Tucker bayou)
2115	North landing at the Lynchburg ferry 1.8 ppm - ITC data
	1.7ppm Cargill since dissipated - ITC data
	Caer, directly across buffalo bayou 11ppm, VOC 26ppm - Houston Fire (?)
	Lynchburg ferry 0.5ppm at 9:10pm – ITC data

2130	2.5 across the river in Channelview, just east of intersection of lakeside drive and De zavalla road (Carpenter's bayou) Update at 2326: 2.5 in the channel –
	may be due to barge fueling
2137	Morgan Johnson, Kirby corporation, 4 vessel crews reporting strong odors,
2137	nausea, on Carpenter's bayou between Houston fuel oil terminal and Kirby training facility (more than one person sent to the hospital)
2151	Wind from the southeast 4 miles an hour
2212	- no updates give to State On-scene Coordinator –
2216	Readings of 6.4 benzene on Tidal, applying foam to knock it down
2255	START team EPA deployed to the area (I-10 and 330 area)
2255	Good to go on the transfer from 80-7 to 80-18
2312	Not sure if they have begun the transfer
2312	10am press briefing tomorrow (3/23/2019)
2322	"How much foam we got?" – "scheduled through Sunday for tote delivery"
2340	Ferry Terminal A 1.5ppm benzene, Carhill 0.0, Dock "out here" is 0.0 (Port of
2340	Houston Fire)
	0.08 Benzene on Tidal
	TNT Fire boat coming in 30 minutes to drop boom
2355	TNT Fire boat cannot come through without breaking existing boom line - not advised by crews on site
0000	3-foot dike wall with dirt, fire setting up suppression when that's set up we
	would be a go for the pump
0019	Vopak e-notify sustained benzene readings 5ppm (Independence Parkway)
0025	START in Lynchburg not getting any hits
0036	Little over 8500 feet of boom, want to do Old River tonight, and San Jacinto tomorrow
0040	Revised actions to pump out 80-7 to 80-18 starting in the morning (0700), want
	to secure dike wall (currently 3 feet tall), containment wall was originally
	6 feet tall
	Carpenter's Bayou now boomed, Battleship Texas boomed, San Jacinto Park east
	side (appears to be entrance to marsh) boomed
	OilMop produced trajectories
0140	Channelview still has hits of benzene, none over 1.0 but a 0.9ppm benzene
0110	reading detected
0147	3.9ppm on Tidal ITC
0 ± 1.	5.5 FF 5